

## HTH - Hyperthyroidism

### HTH-AP ANATOMY AND PHYSIOLOGY

**OUTCOME:** The patient/family will have a basic understanding of the anatomy and physiology of the pituitary-thyroid axis.

**STANDARDS:**

1. Explain the normal location, function, and feedback mechanism of the pituitary-thyroid axis (heart rate, muscle strength, bowel function, fat metabolism, energy level, hair growth, and mood).
2. Discuss the changes to the thyroid gland and the body's metabolic state as a result of hyperthyroidism.
3. Discuss the impact of these changes on the patient's health and well-being.

### HTH-C COMPLICATIONS

**OUTCOME:** The patient/family will understand the effects and consequences possible as a result of hyperthyroidism, failure to manage hyperthyroidism, or as a result of treatment.

**STANDARDS:**

1. Discuss the significant complications associated with hyperthyroidism (atrial fibrillation, heart failure, angina, myocardial infarction, osteoporosis, depression, personality changes, proptosis).
2. Explain that taking medications as prescribed may prevent most or all significant complications.
3. Discuss common or significant complications which may result from treatment, e.g., subsequent hypothyroidism and the need to take lifelong medication.

### HTH-DP DISEASE PROCESS

**OUTCOME:** The patient/family will have a basic understanding of the pathophysiology of hyperthyroidism.

**STANDARDS:**

1. Explain that hyperthyroidism occurs when the amount of thyroid hormone in the blood is too high. It affects over 2½ million Americans. More women have this problem than men.
2. Explain that hyperthyroidism leads to an overall increase in a person's metabolism, which can cause a number of problems.

3. Review the patient-specific cause and expected course of hyperthyroidism, e.g., “increased production” due to hypersecretory state (e.g., Grave’s disease, toxic nodule, toxic multinodular goiter, or overproduction of TSH from pituitary), “leakage” of stored hormone due to thyroid damage (as in thyroiditis), or too much supplement.
4. Review the symptoms of hyperthyroidism:
  - a. Feelings of excessive warmth and sweating
  - b. Palpitations
  - c. Tremors
  - d. Weight loss despite having an increased appetite
  - e. More frequent bowel movements
  - f. Weakness
  - g. Limited endurance
  - h. Difficulty concentrating
  - i. Memory impairment
  - j. Nervousness
  - k. Tiredness
  - l. Difficulty sleeping
  - m. Depression
  - n. Personality changes
  - o. Enlarged thyroid—usually nontender

**HTH-FU FOLLOW-UP**

**OUTCOME:** The patient and/or family will understand the importance of follow-up in the treatment of hyperthyroidism.

**STANDARDS:**

1. Discuss the importance of follow-up care.
2. Discuss the procedure for obtaining follow-up appointments and that follow-up appointments should be kept.
3. Emphasize that full participation in the treatment plan is the responsibility of the patient/family.
4. Discuss signs/symptoms that should prompt immediate follow-up (both symptoms of hyperthyroidism and hypothyroidism).
5. Discuss the availability of community resources and support services and refer as appropriate.

**HTH-L LITERATURE**

**OUTCOME:** The patient/family will receive literature about hyperthyroidism.

**STANDARDS:**

1. Provide the patient/family with literature on hyperthyroidism.
2. Discuss the content of the literature.

**HTH-M MEDICATIONS**

**OUTCOME:** The patient/family will understand the purpose, proper use and expected outcomes of prescribed drug therapy.

**STANDARDS:**

1. Describe the name, strength, purpose, dosing directions, and storage of the medication.
2. Discuss the benefits and common or important side effects of the medication and follow up as appropriate.
3. Discuss any significant drug/drug, drug/food and alcohol interactions, as appropriate.
4. As appropriate, explain the implications that medications have on current or potential pregnancy.
5. Discuss the importance of keeping a list of all current prescriptions and over-the-counter medicines, vitamins, herbs, traditional remedies, and supplements. Encourage the patient to bring this list and pill bottles to appointments for medication reconciliation.

**HTH-MNT MEDICAL NUTRITION THERAPY**

**OUTCOME:** The patient and family will understand the specific nutritional intervention(s) needed for treatment or management of hyperthyroidism.

**STANDARDS:**

1. Explain that Medical Nutrition Therapy (MNT) is a systematic nutrition care process provided by a Registered Dietitian (RD) that consists of the following:
  - a. Assessment of the nutrition related condition.
  - b. Identification of the patient's nutritional problem.
  - c. Identification of a specific nutrition intervention therapy plan.
  - d. Evaluation of the patient's nutritional care outcomes.
  - e. Reassessment as needed.
2. Review the basic nutrition recommendations for the treatment plan.

3. Discuss the benefits of nutrition and exercise to health and well-being.
4. Assist the patient/family in developing an appropriate nutrition care plan.
5. Refer to other providers or community resources as needed.

**HTH-N      NUTRITION**

**OUTCOME:** The patient/family will understand the importance of adequate nutrition to promote healing.

**STANDARDS:**

1. Discuss the relationship between making healthy food choices and the healing process.
2. Refer to a registered dietician for MNT as appropriate.

**HTH-SCR      SCREENING**

**OUTCOME:** The patient/family will understand the screening device.

**STANDARDS**

1. Explain the screening device to be used.
2. Explain why the screening is being performed.
3. Discuss how the results of the screening will be used.
4. Emphasize the importance of follow-up care.

**HTH-TE      TESTS**

**OUTCOME:** The patient/family will understand the tests to be performed, the risk(s)/benefit(s) of the test(s) and the risk of refusal of the test(s).

**STANDARDS:**

1. Explain the test ordered and collection method (e.g., TSH, T3, T4, nuclear scan, ultrasound).
2. Explain the necessity, benefits, and risks of the test to be performed and how it relates to the course of treatment. Discuss the risks of non-performance of the testing.

**HTH-TX      TREATMENT**

**OUTCOME:** The patient/family will understand the possible treatments that may be performed based on the test results.

**STANDARDS:**

1. List the patient-specific possible therapies that might be utilized to treat hyperthyroidism (beta-blocker, anti-thyroid drugs, radioactive iodine, surgery).
2. Briefly explain each of the possible applicable treatments.
3. Explain that the patient and medical team will make the treatment decision after reviewing the results of diagnostic tests.
4. Explain the implications that treatment would have on current or potential pregnancy.